

Transforming Technology through Agile Investment

June 25th, 2020

10x

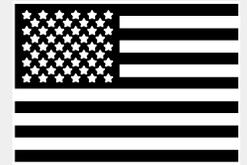
10x is the Federal Venture
Studio in GSA's Technology
Transformation Services (TTS)



Hello...

FROM CLEVELAND

10_x / SOL / TTS / FAS / GSA /



OUR MISSION

10x is an investment program designed to take valuable ideas from federal employees and turn them into real projects.

... BECAUSE

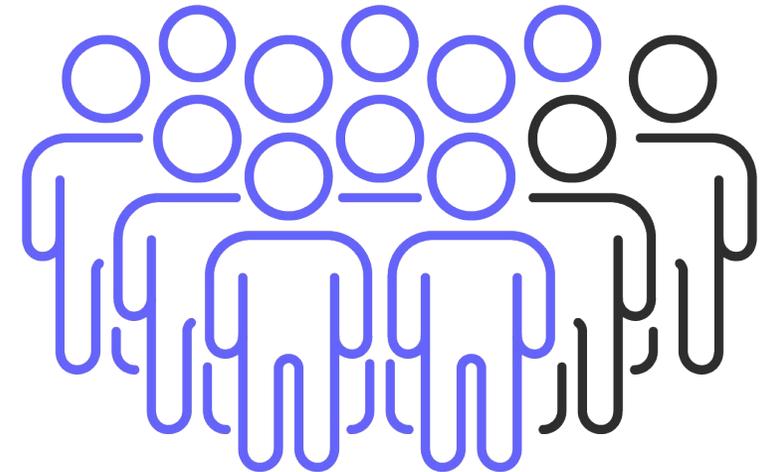
We believe **federal employees have valuable ideas** on how the government can improve the way it uses technology.

THE DIGITAL SERVICES FUND

Our funding authority allows us to fund software technology ideas that are **new**, **good for government** products and services



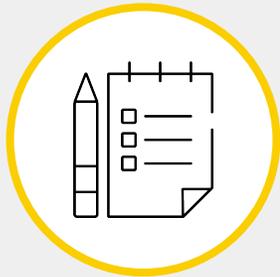
A reusable tool **multiple agencies** can use



Impacts a **large part of the general public**

10x BY THE NUMBERS

SINCE FY15



Evaluated

792 ideas



Funded

215 projects



Invested

\$26,717,812

The 10x Approach

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How does 10x turn ideas into real projects?

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- We solicit ideas for how the government can use technology better.

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How does 10x turn ideas into real projects?

- We solicit ideas for how the government can use technology better.
- Then, we evaluate these ideas and choose some to move through our **10x process**.

THE 10x APPROACH

Our process is a **phased funding approach** designed to weed out untenable ideas quickly and move promising ideas forward.



*The problem we're
trying to solve*

THE PROBLEM

Each year, a large percentage of technology investments in government don't work.

In 2018, the federal government spent **\$86 billion** in technology.



Our Core Principles

CORE PRINCIPLE #1

Most ideas for new technology projects won't work out.

| This is normal.

CORE PRINCIPLE #2

It's better to spend \$20,000 on something that won't work out than \$20,000,000.

Spend the least amount of money possible to render the most value.

CORE PRINCIPLE #2

The 10x funding process starts small and increases at each phase.



Phase 1

INVESTIGATION

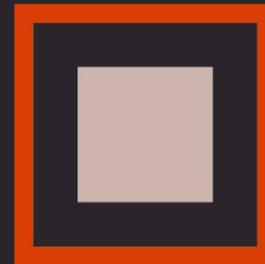
\$20,000



Phase 2

DISCOVERY

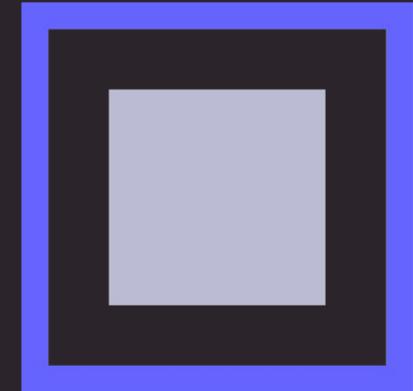
\$175,000



Phase 3

DEVELOPMENT

\$500,000



Phase 4

SCALE

<\$1,280,000

CORE PRINCIPLE #2

Each phase answers a different question.



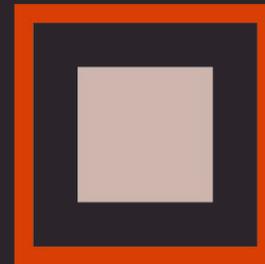
Phase 1

Is this a bad idea?



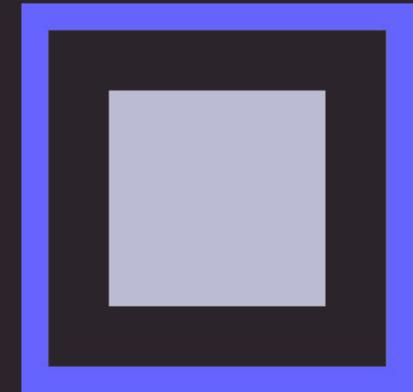
Phase 2

Is this a good idea?



Phase 3

Will anyone use this?



Phase 4

Will everyone use this?

CORE PRINCIPLE #2

Each checkpoint requires greater proof to justify continuation.



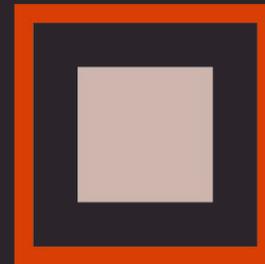
Phase 1

Major red flags



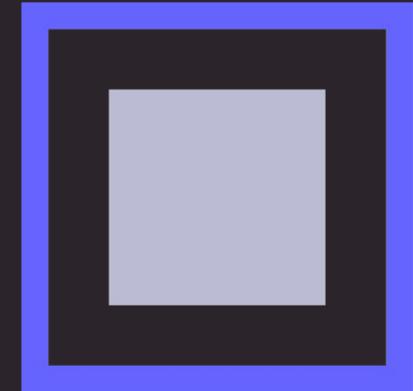
Phase 2

Current state, market fit, finances, timeline, regulatory issues, how to scale



Phase 3

MVP, one active customer, roadmap, business plan, market analysis



Phase 4

Additional customers, reach largest possible audience

CORE PRINCIPLE #3

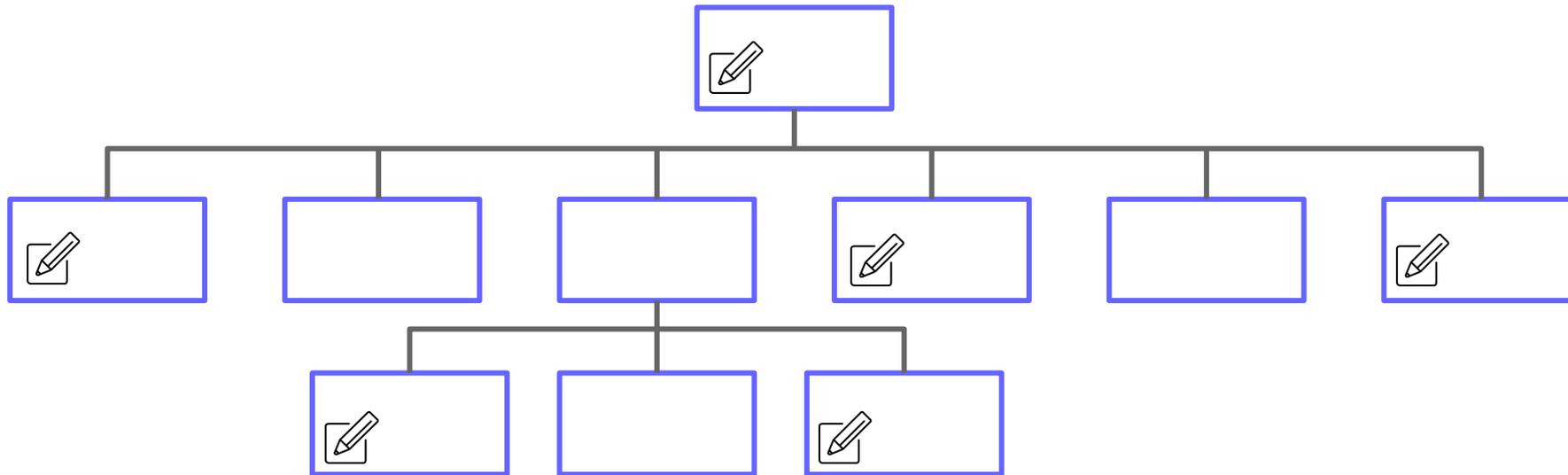
10x investigates as many ideas as possible **so we can invest in the best ones.**



Fewer projects proceed to each subsequent phase.

CORE PRINCIPLE #4

Good ideas can come from anyone.

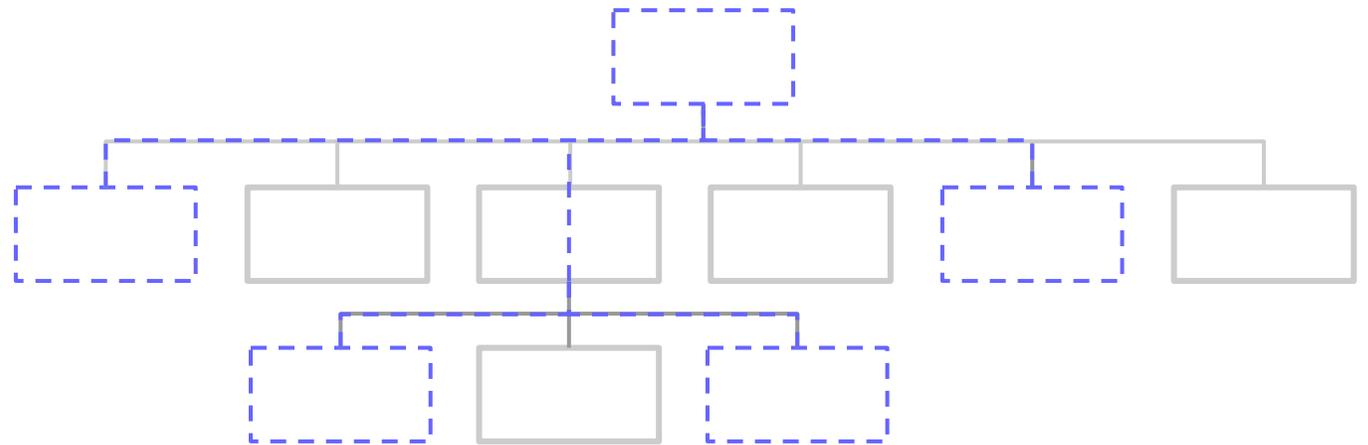


CORE PRINCIPLE #4

10x is designed to bring ideas from the edge of the org chart to the center in a way that supports, rather than disrupts.

Bureaucracies are designed so that ideas flow from top to bottom.

This creates missed opportunities.



CORE PRINCIPLE #5

Projects should be sustainable and deliver value after they exit the 10x funnel.

Hello...

FROM WASHINGTON, DC

Our Investment Portfolio

Login.gov

PRA.digital.gov

US Web Design System

GNS

Bug Bounty

Code.gov

Resources.data.gov

Eligibility APIs Initiative

Spotlight

Privacy Dashboard

Combating Bias in AI /

ML Implementations



Demos, Not Memos

ELIGIBILITY APIs INITIATIVE

This is a demonstration website only. Do not enter any private or personal data.

Could you be eligible for help with your food budget?

Answer a few questions to find out if you may be eligible and how many dollars per month you may qualify for.

State:

✓ - Select -
Illinois
Utah
Vermont
- Select -

Monthly income from a job or from self-employment:

Monthly income from other sources:

(These could include: Social Security, disability, Child Support, Worker's Comp, Unemployment, Pension Income, or other sources of income.)

Total assets:

Rapid implementation of **policy as code**

SPOTLIGHT

An official website of the United States government. [Here's how you know.](#)

Spotlight

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Spotlight highlights the features contributing to any federal website's success, for free.

Spotlight is an open source website scanner for federal government professionals who want to see the big picture of a federal website's excellence. That means that rather than going into the weeds into any one particular area, you can use Spotlight to highlight the critical features that most reflect overall excellence on websites:

- Accessibility
- Design
- Performance
- Analytics
- Third-Party Links
- Security

Why Spotlight?

- Scans run automatically, allowing results whenever you want
- Daily scan results deliver the latest data to you

On-demand
**analysis of any
federal domain,**
free

COMBATING BIAS IN AI / ML IMPLEMENTATIONS

To do this we'll first need to authenticate to Google Cloud Storage. Executing the following cell will generate a link which you'll need to follow to get a verification code.

```
from google.colab import auth
auth.authenticate_user()
```

Now we'll sync the data for the colab to a tmp directory from Google Cloud Storage.

```
| | project_id = 'mledu-fairness'
| | gcloud config set project (project_id)
|
| gos_bucket_name = 'mledu-fairness/colabs/debias_word_embeddings'
| local_dir_name = '/tmp/debias_word_embeddings'
| if not os.path.exists(local_dir_name):
|     print "creating dir %s" % local_dir_name
|     mkdir (local_dir_name)
|
| !gsutil rsync gs://{gos_bucket_name} (local_dir_name)
|
| !ls -al (local_dir_name)
|
| WORD2VEC_FILE = os.path.join(local_dir_name, 'GoogleNews-vectors-negative300.bin.gz')
| ANALOGIES_FILE = os.path.join(local_dir_name, 'questions-words.txt')
```

A toolkit for
**eliminating bias in
federal datasets**
destined for AI
algorithms



*What problem are **you** trying to solve?*

10x MAD LIBS



We have observed [problem or opportunity]. We believe that if we [do this] that it will result in [this benefit] for [this group of people].

10x FY20 Round 2 Themes

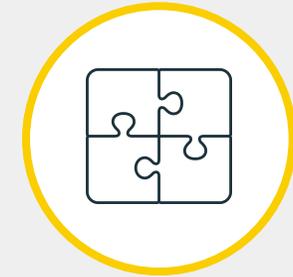
Submission Deadline | **August 5, 2020**



**Public-facing
services**



**Disaster
management
services**



**Diversity,
inclusion and
accessibility**

Keep tabs on us

10x

Learn more about our projects at 10x.gsa.gov